FOR MYSORE STATE

R.W. **(1950) Department.**

P. SERIES.

G.O. NO. 520

Dated 30th November 1950

[Despatch Abstract.]

Agriculture — Manures — Compost — Composting of Village night-soil — Wardha System — Scheme — Sanctioned.

Copy to Mysore Sec.

MISCELLANEOUS.

RURAL WELFARE DEPARTMENT

G.O. No. 520, 30th November 1950

Agriculture—Manures—Compost—Composting of village nightsoil—Wardha System —Scheme—Sanctioned.

READ—the following paper:—

From the Board of Revenue, Ref. No. F.P. III. 8753/49-5, dated 20th March 1950.

Order—No. 520, Rural Welfare, dated 30th November 1950.

The Board of Revenue (Food Production) has submitted proposals for the introduction of the Wardha System of compost-latrines for composting nightsoil in villages, which is based on the report of the Special Committee appointed by the Government of Madhya Pradesh. The description and the mode of construction of the sanitary structures recommended by the Special Committee and other details are given in the annexure. One unit consisting of six seats each can be used by sixty persons and 10 such units are required in a village having a population of 600. Each unit inclusive of the trenches is estimated to cost Rs. 500. The Government have examined the proposals of the Board of Revenue. In view of the fact that the designs of these structures are new and also because there is considerable prejudice in many parts of the State against the use of nightsoil manure, it has been decided that these structures should, in the first instance, be introduced as an experimental measure under the Rural Welfare Scheme in one village in each of the two model firkas of Tirumangalam in the Mathurai district and Dendulur in the West Godavari district.

2. In each of the villages selected for the purpose, ten sanitary structures—five for men and five for women—consisting of six seats each, should be constructed under the supervision and guidance of the Compost Development Officer and the Public Health Staff. The structures should be at least 20 yards away from the nearest habitation and 50 yards away from drinking water wells. The sites for the construction of these structures should be acquired if no suitable Government lands are available. Sanction is accorded to the incurring of an expenditure not exceeding Rs. 5,000 (Rupees five thousand) only (excluding the cost of land-acquisition) for the construction of the trench-latrines in each of the two villages.

3. The trench-latrines in each village should regularly be supervised by a compost supervisor whose duties have been clearly defined in the annexure. Sanction is accorded to the employment for a period of one year from the date of employment of two compost supervisors on a fixed pay of Rs. 25 per month each (inclusive of dearness allowance) one for each of the Tirumangalam and Dendulur firkas for supervising the trench-latrines and attending to the duties defined in the annexure. The posts should be filled up only after the sanitary structures are constructed and put into use.

4. It is estimated that the annual production of manure in 10 units of six seats each will be about 5,000 c.ft. or about 200 cart-loads. The scheme is expected to yield an annual revenue of Rs. 400 in each village by way of sale of manure at Rs. 2 per cart-load.

5. As the successful operation of the compost-latrines requires the active co-operation of the villagers, the scheme should be introduced in those villages where adequate co-operation is forthcoming from the villagers and where they stand a best

chance of becoming popular and yielding concrete results. The Collectors of Mathurai and West Godavari are therefore requested to select one suitable village with a population of at least 600 in the Tirumangalam and Dendulur firkas respectively for introducing the trench-latrines and submit proposals for the approval of the Government.

6. The expenditure on the construction of the trench-latrines and on the pay and allowances of the Sanitary Supervisor should be debited to "25. w. General Administration Miscellaneous—F. Post-war Reconstruction—Expenditure from the fund for Village Reconstruction and Harijan Uplift." The receipts by way of sale of manure should be credited to "P. II. Deposits and Advances—(Deposits not bearing interest)—B. Reserve Funds—e. Fund for Village Reconstruction and Harijan Uplift (Madras)."

(By order of His Excellency the Governor

M. S. Jagannayakulu,
Secretary to Government.

To the Collectors of Mathurai and West Godavari.
" Board of Revenue Food Production), Madras.
" Accountant-General (through the Finance Department).
" Inspector of Municipal Councils and Local Boards, Madras.
" Director of Agriculture, Madras.
" Director of Public Health, Madras.
" Compost Development Officer (through the Inspector of Municipal Councils and Local Boards).

Copy to the Food and Agriculture Department.
" the Food and Agriculture (Food Production) Department.
" the Health Department.
" the Local Administration Department.
" the Finance Department.
" all other Collectors except the Collector of Madras for information.
" the Deputy Director of Rural Welfare (Santhi), Fort St. George, Madras-9.
" the Deputy Director of Rural Welfare (North), Gopalapuram (via), Madras.
" all Rural Welfare Officers (Rural Welfare Department).
" the Principals of the Tamilnad Grama Sevak Vidyalayam and Andhra Grama Sevak Vidyalayam.
" the Director of Information and Publicity, Madras-9.
" the Rural Welfare II and III Sections.

ANNEXURE.

Wardha System of compost-latrines for villages.

Description of the sanitary structures.—This will consist of two separate parts (*a*) the trenches and (*b*) the superstructure.

(*a*) *The trenches.*—For every unit structure there will be two trenches of similar dimensions used in relay. When one is in use the other will be empty or completely filled with composted material, which will be excavated when ripe. The internal dimensions of these trenches (after brick-lining) for six seats will be 20 feet length × 2 feet breadth × 4 feet depth. Each trench will be 3 feet underground and 1 foot to 1½ feet overground. The trenches are constructed as described below:—

(1) Dig a trench of length 21 feet 6 inches, breadth 3 feet 6 inches and depth 3 feet.

(2) Cover the whole bottom of the trench with 4½ inches brick on edge with lime and mortar. Over this construct 9 inches brick wall in lime mortar all round with an offset of 3 inches on all sides. The wall should be built 1 foot to 1½ feet overground (3 feet underground and rest overground). Also construct 9 inches cross walls at 6 feet 9 inches centre to centre. Another trench of the same type may be constructed a few feet apart from the first. These trenches could also be constructed together with a central wall of 13½ inches serving as a common wall. Murrum is spread and properly dressed to a width of 4 feet all round with a slope of 1 in 2.

(*b*) *Superstructure.*—The superstructure will consist of a fly proof platform on top of the trench and shiftable enclosure with partition walls, doors and roof constructed in two units, each 10 feet in length.

Two 4½ inches diameter teak ballies, each 20 feet 3 inches in total length (can be divided into two pieces of 10 feet ½ inch length) are placed along the length of the pit at 2 feet 4½ inches centres for supporting the wooden platform and squatting seat. The platform is made from the side cuts of teak logs. The joints of the teak planks should be air-tight. An opening of 9 inches × 24 inches should be provided for each latrine seat. Over the opening is fixed a fly-tight cover of 24 inches × 30 inches with a handle to lift it. This cover rests over 1 inch wooden corbing and is hinged at the back to a plank 1½ inches thick. This platform may be constructed in two parts so that it could be easily lifted and fixed over the over trench.

The superstructure could be light, closet type of structure constructed on four wooden *ballies* with small wooden supports for resting it on the ground. Wooden batons, bamboos and bamboo mats are used for its construction. Each set is closed on all sides, front side being used as the door. A suitable lean to roof is provided.

The cost of this structure, inclusive of trenches is estimated at Rs. 500 per unit of six seats for sixty persons.

2. *Methods of using trench latrines.*—Before putting the above compost-latrines in use, a 3-inch layer of organic refuse (grass, shredded leaves, etc.) or dry earth mixed with available refuse, is spread at the bottom of the trench. A stock of refuse or dry earth, is kept near each privy and every person using the privy has to cover the faeces with at least half a pound (three to four handfuls of refuse or dry earth). Before using the latrine, the seat cover is lifted and after using the trench, the faeces is covered with refuse and the seat cover closed.

In each of the villages where these structures will be introduced a compost supervisor should be employed to take care of these structures. A compost supervisor could easily supervise about 10 to 15 units of six seats each, i.e., one supervisor could easily manage a village population of six hundred to nine hundred. This person can be of any caste as he has not to handle nightsoil. He may be paid reasonable emoluments in kind and money. This supervisor will have the following duties :—

(i) Every day from 9 a.m. to 12 noon, he will put an extra 2 inches to 3 inches layer of refuse in each trench and ram the refuse lightly with a wooden rammer.

(ii) In the afternoon from 2 p.m. to 6 p.m. he will collect as much organic refuse as possible from the village abadi and nearby fields as per directions of the Rural Welfare staff. Voluntary services of a bullock-cart may be obtained from the cultivators of the village for transporting refuse to the various units of sanitary structures.

(iii) The supervisor with the help of other labourers or voluntary social workers will remove the ripe manure from the trenches and heap it outside the trenches for sale.

It is felt that the compost supervisor could be easily paid from the receipts of the sale of manure. A population of 600 will need about 10 units of six seats each and the annual production of manure will be about 5,000 cubic feet or 200 cart-loads. If the manure is sold at Rs. 2 per cart-load, which is a very moderate price, the compost supervisor could be easily paid Rs. 20 to Rs. 25 per mensem.

Availability of refuse.—Small dust bins may be kept in village abadies for collecting all ash, house sweepings, and road sweepings. Refuse from these would be removed in wheel barrows by the compost supervisor.

3. A weekly day for collection of refuse may be organized by the Rural Welfare staff, when all the villagers, old and young could help in collecting the refuse.

4. Voluntary contributions of refuse from the cultivators may be asked for.

5. *Provision of funds, land, etc.*—Since the successful operation of the compost-latrines require the active co-operation of the villagers, it is recommended that to start with, the system may be introduced in those villages which possess active gram panchayats, congress committees or other bodies who can undertake proper supervision of the latrines.

Where the villagers are willing to make voluntary contributions of materials, labour and money, it would be possible to reduce the capital cost considerably.

In those cases where suitable sites are not available near the outskirts of the village abadi for construction of the latrines, Collectors should come forward to acquire necessary land for the above purpose. These sites should be at least 20 yards away from the nearest habitations. It would minimize possible nuisance if a live-fence (up to a height of 4 to 5 feet) of rapidly growing hedge plants could be established all round each unit of trench-latrines. Each unit would require an area of about 30 feet × 15 feet and would be sufficient for fifty to sixty persons of the village population. If the scheme proves successful, the number of units could be increased in subsequent years.

Compound G.—
Public. 5/7